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ABSTRACT

The author considers the search for a better, pollution-free environment and the political processes by which various groups attempt to influence or control the actions of others in the context. He defines the goal of conservation as a recognition of the interdependence of man and his environment and lists 13 propositions which indicate the urgent need for immediate action to restore the balance between man and nature. Among the matters which receive brief mention are the natural checks on population growth, the dominance of man, and biological evolution. The contribution of each individual to the problem of pollution is indicated. The role of the conservationist as teacher and minister is stressed, with some suggestions for future activities. (JY)

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Propositions Towards the Survival of a Self-Endangered Species: The Fundamental Question

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There are, to my reading, at least four views of the millennium we seek; I summarize them freely (with apologies to Needham). The millennium we seek -- the world of the good, the free, the beautiful, the world in which people are free and equal, in which full justice prevails, and in which the sanative environment, forever safe from pollution and in which all living things find safe haven is

- Here and now
- Not here but now
- Not now but here
- Not now and not here.

Certainly, it is not the first and the others give us hope. A conservationist's prime energy -- his thrust -- is hope.

Certainly the environment we seek is "not now" but surely it is to be "here". I have come to believe that one of our major philosophical and practical dilemmas is that in our modern world there are truly no solutions -- only ameliorations. We have become, infact, a self-endangered species.

Put simplistically, our problem is to reconcile man and human, philosophical man with

esthetic man, to conciliate technology and spirit, to wed man to nature once again -- to bring political man, economic man, intellectual man, esthetic man, ethical man into clear, brilliant and sympathetic focus, and once this is done, to unite these facets into one.

In all this, I should suggest an ethical pragmatism -- the compromise which conciliates those who use the land -- those who use the land for esthetics and those who use the land for technics.

Foreign observers never fail to point out a lovely characteristic of Americans: Americans don't love their country as it is, but as it will be -- as they will make it for their children and children's children. If this is true -- and I believe it is true enough to gain the stature of maxim, the processes in the main by which this hope will be attained in our open society are social, and fundamentally political.

The processes by which governing bodies, public and private, make plans and rules and put these into practice, is normally called politics. Put another way, the methods government uses to make decisions and the procedures used to enforce

them are essentially what we call politics -- or the political process.

In practice, however, most of us leave political activity per se to "experts" and are concerned mainly when somehow -- in thought, statement, or deed, or plan -- we come into conflict with the experts. Most of us, perhaps, have come to consider politics as the resolution of conflict for constructive ends -- peace, or law, or order, or prosperity -- or conflict in the interests of a sanative -- that is -- a healing -- environment.

Some have defined politics as the "art of the possible." There is a delicate assumption implied in the statement, namely: The number of rules and the power of government should be not greater than necessary -- a mild assurance of the greatest quantity and quality of individual rights. As we shall see, it is here that many conservationists have found cause for dismay: i.e. either government does not make sufficient decisions (rules), or government makes too many rules. Nevertheless, political activity attempts to develop those decisions through which fruitful interaction is maintained -- generally in the

direction of peace and prosperity. In our poligical system this is presumed to be the peace and prosperity the majority desires; we may say, more truly it is the order and peace -- not of the majority -- but the majority of those who are politically active. Thus while it is theoretically affirmed that decision-making and decision-enforcing are in the hands of the majority, it is pragmatically affirmed that these elements (decision-making and decision-enforcing) are in the ahnds of the politically active. Nevertheless, the poligically dormant have as much responsibility as those who have not made the political decisions necessary to make technology the servant, not the master of man.

The power to conserve the environment -- defined as the favored position in the planning and enforcing decisions concerning the environment is in the hands of the politically active. This is true, of course, within the context of our poligical system -- representative democracy.

For our purposes (the purposes of conservation, then, the political processes, can be thought of as "the ways and means by which various groups in a society contend for what they take to be their interests and for influence in public affairs, by which any group tries to control the actions of others that it sees as threats to its

own position, and how these diverse and conflicting interests, pressures and maneuvers are resolved into policies and programs." This is the view of Coleman Woodbury, Chairman of the Department of Urban and Regional Planning at the University of Wisconsin (out of his Model State and Regional Planning Law - 1955). True, this process may end in policies and programs but as often as not it ends (as Woodbury remarks) in "stalemate, frustration and alienation." This too has been my experience.

In attempting to secure a pragmatic -- and helpful -- posture for this meeting, that is to relate it appropriately to program in conservation -- particularly as seen from the vantage point of my vast hopes, even vaster frustrations, and meager successes, I yielded to thought of the political process in terms of <u>who gets what, how he gets what he gets, and when</u> and of course, I found (as I checked my statements and facts against other publications that the political scientist, Harold Lasswell, had indeed titled his book: <u>Politics---Who Gets What, When and How</u>.

In other words, whose expectations will be satisfied, how, and when.

I shall construct my remarks accordingly -- not necessarily in this order -- nor in equal emphasis. With my need always to define terms and positions, let me begin with what; I shall defer dealing with the who to the end:

What --

At another time, at the Airlie Lecture, I found it necessary to define conservation in terms acceptable to planners, ecologists, economists, geographers, political scientists, and educators.

Thus:

Conservation is the recognition of man of his interdependence with the environment and with life -- everywhere -- to sustain a culture which will maintain a sanative (healing) environment for those who live and will live.

What, therefore, implies: An Environmental Bill of Rights which will assure a sanative environment. What is meant by sanative will be sketched in further remarks, but it is clear that nothing else but a sanative, a healing environment, will do.

Rene Dubos has taken time from his all-important studies of disease to devote increasing time to the all-important study of the environment. In his book, So Human An Animal, he argues that quiet, privacy, independence, initiative and open space (these are properties -- not all-inclusive -- of the sanative environment) are real biological necessities, not frills or luxuries. As he states "To realize the multifarious biological and spiritual potentialities of mankind requires an immense diversity of environments." Man must return to the"wooing of the earth."

When --

The time is irrevocably "now." All data point to the need for action "now." As we shall see we have reached the point of no return in our attempts to civilize man; civilized man lives in harmony. Civilized man does not plunder this planet. Civilized man conserves. Now conservation can no longer be defined in terms of caution as "wise use of resources" but in the sober injunction to organize shortage. In fact, "organization of shortages is the basic thrust of Ekistics, the science and art of conservation.

Business, Books, People, etc. -- titled the Environment, the tocsin has indeed raised its urgency. Let me undergird this urgency with 13 propositions -- briefly and loosely tied together in logic -- and supplemented by items coming out of our trammelled technological take-over. In developing these 13 propositions I take freely from Aldous and Julian Huxley, from Garret Harlen, from George Gaylord, Simpson and a variety of scholars -- including Toynbee. Under each proposition, I shall intercalate "items" and comment which indicate how man has tampered with the implications derived from the propositions -- These propositions -- in modified form were first presented to a colloquiam of conservationists at Humboldt State College (National Association for Conservation Education) July 1968 - and published, again in modified form, in American Forests, November 1969.

1. The present million or so species of organisms, including man, have come out of a history traversing several billion years -- presumably from one primitive organism.

We need to understand - inclarion clarity -- that each species has a long and honorable history. And that is but one of them. Man is not master. He is co-inhabitant.

Item: Man destroyed the passenger pigeon. He destroyed the dodo. The Wildlife Federation lists increasingly more species in danger of extinction -- the bald eagle, the pasque flower,

Rachel Carson has dwelt on this, and Kenneth Boulding has equipped:

By undiscriminating use of

strong insecticide --

Our temporary game is lost when

all our friends have died --

2. The environment available to organisms is limited; further for any species, the organism is adapted to a special environment and serves a special ecological niche. (In all probability, no two species occupy the same ecological niche.)

Item: About 10 thousand years ago, the trouble began when man -- leaving off hunting and food-gathering -- began to cultivate food stuffs. Since then (for example, in his niche) he has increased the greenhouse effect to such an extent that there has been a significant rise in the average temperature; some calculate that another five or six degrees would endanger the polar icecaps. On the other hand, others submit that the increasing lager - a blanket of particles which man's technology cannot seemingly prevent from escaping into the atmospher will peter out some quantity of the sun's energy. Thus a freezing- not a heating effect.

Item: There is this quiet but terrible lesson (perhaps it is not true): It seems that species and societies die of that which made them great. -- So Toynbee implies.

Are we to die of one of the elements which has made us great: our technology?

The sum and substance is that while almost all other species fit their ecosystems- man does not. He makes a lousy dominant. Apparently, he cannot or will not control the improving of his brain. He is not yet civilized.

3. <u>The environment is finite, species have particular adaptations, yet the growth of a population is held in natural checks by various combinations of starvation, disease, predation, and conflict</u>.

Item: Pesticides saved countless lives -- through control of malaria, cholera, typhus, Rocky Mountain spotted fever.

Item: Pesticides save crops and livestock valued in billions of dollars each year.

Item: Approximately 19% (76,000) colonies of bees in California were killed in 1967 -- twice that in 1963.

Item: Biological magnification is in increasing evidence. A chlorinated hydrocarbon (DDT) or organic phosphates (such as malathon) tend to be concentrated in succeeding organism

Thus, photosynthesis by marine plankton is said to account for more than 50% of the world's O_2 supply. But DDT in .001% parts per million can be concentrated in the algae and reduce growth; the shrimp population which feeds on algae can be immobilized by six to six parts per billion; it is absorbed in the egg yolk of fish --witness the massive kills of Coho Salmon in Michigan.

Item: When leaves from an elm sprayed by DDT are eaten by Worms, it accumulates in their tissues -- and eventually kills birds which feed on worms.

Item: As it drains the mining and industrial areas of West Virginia and Pennsylvania, the Monorphella empties yearly a chemistry of substances equivalent to some 200,000 tons of sulfuric acid into the Ohio River. What of the people who use this water - not to speak of the fish and other aquatic organisms and what of mercury poisoning? And what of the disposition of nerve gas into the waters. What of these misuses of technology - and of human kindness?

To repeat: This is the thesis of Carson's Silent Spring.

4. Man, as dominant, has conquered -- or is on the road to conquest -- of his natural predators -- and of disease.

Item: Typhoid, dyptheria, polio -- many other

killers of children are museum pieces, or could be whenever we would wish.

5. Reproduction of organisms proceeds geometrically -- so too the reproduction of man.

Item: From the beginning of man -- from the beginnings of time, we find an increasing growth of population -- to one billion by 1850.

Seventy years later (1920) -- two billion.

Thirty-five years later (1955) -- three billion.

Fifteen years later (1970) -- four billion. By the end of this century we shall be competing perhaps -- for food and fiber -- with six to six and one-half billion people.

What will this mean concerning:

- number of homes and the number of incinerators and the
- amount of garbage and effluent
- the number of automobiles and their
- exhaust fumes

When will all the major cities of the United States be covered with smog?

Item: Hauser of Chicago University estimated in 1960 that the continuation of our present birth rate in the United States could be 2050 produce a population of one billion. (Since birth rate has decreased slightly, perhaps we may postulate this by 2060 or 2070.)

In 200 years (at 1.7 to 1.8% a year) we can look forward to one person per square foot of land.

Item: Presently 73% of the people live in cities.

6. Therefore, the problem of increase in population cannot be solved by increases in the production of food.

Item: Our present store of food cannot feed the total increase of peoples over the world.

Item: IR8 -- a new rice hybrid produced by the Rockefeller Foundation -- has doubled and tripled the food supply in those rice areas where it has been grown. Yet this is hardly ameliorative under present forecasts of population growth in relation to the productivity of the land.

7. Biological evolution is the transmission and transmutation of genes or DNA. For man this is no longer in effect. Instead what operates is cultural evolution, the transmission and transmutation of knowledge and values.

Item: Man's technology is a function of the cultural evolution, but so are his knowledge and his values.

Item: We have biochemical means, and biological means of controlling reproduction.

Therefore, the biological checks on population -- removed by man -- can be substituted for by a cultural check: The conscious control of reproduction, a newer value.

8. Natural and cultural selection together determine which species shall survive.

Item: We have saved the bison; we are saving perhaps the whooping crane. We may save the bald eagle -- as indicated we destroyed the passenger pigeon, the dodo, almost destroyed the otter.

Item: We may save the Sequoia, the Salmon, the Elephant. May we not save man?

9. There is some reason to speculate that small colonies of "Homo recens" may escape the solar system in the distant future.

Item: Man has stepped on the moon.

Item: But this hegira will come too late for the present dilemma posed by:

(a) The threat to survival posed by environmental hazards as air pollution, accidents, drugs, pesticides, and radiation.

(b) The race between the present unprecedented rate of population growth and the world's food supply.

(c) The difficulty of providing health care services to meet increased needs and growing demands.

(d) The need for an environment that tends to man's needs for "quiet, privacy, independence, initiative and open space."

10. The concepts and values man accepts and imposes on his behavior function critically in the natural and cultural selection of which living things shall survive -- this includes man himself.

Item: Technology is here to stay.

Item: Realism forces us to conclude that we cannot return to a primitive paradise.

11. The rational and hopeful solution is that man may seek a culture relevant to the modern century, made his technology servant

instead of master, control his population, and develop the factors which make his environment sanative -- and fit for all life.

Item: We require a global resources policy.

Item: We require a global population policy.

Item: We require a global Environmental Bill of Rights.

12. There is still time to develop a sanative environment. But the data -- population data, resource data -- indicate that time -- like all our resources -- is in short supply.

13. Therefore, it seems we have reached a cultural and biological point of no return. Therefore, the time to press for the sanative environment -- for an enforceable Environmental Bill of Rights -- is now -- irrevocably now.

How --

I turn, then briefly to how:

I wish I might ~~spend~~ spend more time on this, ~~time on this~~ because this aspect of his has been a life study. Of course, there are much more knowledgable and effective people to discuss

the methods of achieving a sanative environment. Nevertheless, there are a few guide lines I am compelled to sketch; these are both short-range and long-range and both are undergirded by philosophical dictates: The dictates which inform conscience.

I should suggest that our major tactic in thought and action be: Between impulse and action, to interpose evidence, reason, judgment and compassion. There exists tons of data on cleansing the environment, of replenishing it, of living within its limits, in short, of organizing shortage. When are we to use the knowledge. When are we to employ the methods of intelligence?

We have not, of course, easily established this guide: between impulse and action, to interprose a wedge of evidence and reason and judgment -- not the least of these is comparison: For example, Glen Seaborg, Chairman of the U. S. Atomic Energy Commission, in reporting to the National Academy of Sciences-National Research Council on May 5, 1969 ("The Environment -- and What to do About It"), states:

"I recently received a letter from a prominant national organization advising me of a resolution their membership had passed. This resolution, I was informed, put them on record as opposing further industrial development on any "wild,

natural, native, pristine, scenic or pastoral portion of coasts or shores of the United States including the shores of the Pacific, Atlantic and Artic oceans or the Gulf of Mexico, and their bays and estuaries and inland waters." Needless to say, that is a pretty all-inclusive and definitive statement. If it were also a "non-negotiable demand" I'm afraid we would have to declare an immediate moratorium on any and all further growth in the U. S. -- including that of the offspring of the members of the organization that drafted the resolution."

Have we always informed our conscience?

Who is it who buys and drives cars, consumes gasoline, requires drilling in off-shore areas? And, who is it, by so doing, adds to the nitric oxide and other pollutants in the air?

Who is responsible for the smog? Who is responsible for the use of pesticides -- of any kind -- to destroy rodents, insects, or fungi?

Who is it that builds houses and cements the driveways and the sidewalks?

Who is it (saying that the valley of the river belongs to the river), nevertheless, builds houses in the river valleys?

Who is it that uses non-biodegradable detergents?

Who is it that sends effluents into our lakes and rivers? Who is it that throws beer cans into trout streams? Who is it that uses incinerators? Who is responsible for utrophication? Who is responsible for biological magnification?

Who is responsible for the fact that in a central portion of Lake Erie -- some 2,500 square miles -- there was no dissolved oxygen. Who uses the more than 700 million pounds a year of pesticides and agricultural chemicals, in a variety exceeding some 45,000 kinds. Who put DDT residue in the pinguins of Antartica. Who will be required to furnish the 100 billion in dollars over the next decade to cleanse the home he has fouled?

Further, we eronously assume that nature balances itself? Do we not tend to forget that nature plays no favorites? It creates, and its creations are phenomenal and beautiful but often nature destroys whimsically. Haven't a great number of species of life disappeared from the face of the

earth? Not because they tampered with the balance of the Earth but because they could not and so became its victims.

Man is becoming his own victim because he is reproducing as nature intended him to do. His technology is making him great -- but I repeat the lesson: species die of that which made them great.

"Natural" controls, that is, the controls of nature -- are not helpful -- even if nature destroys as whimsically as man does carelessly. For example, Glen Seaborg cites the following:

"The earthquake in Shensi Province of China in 1556 killed an estimated 800,000 people, and the one in Japan in 1923 took close to 150,000 lives and destroyed more than half a million homes. The volcanic eruption of 1470 B.C. destroyed much of the Minoan civilization. The 1883 explosion of Krakatoa, an island in Indonesia, which in addition to wiping out 163 villages and killing 36,000 people sent rock and dust falling for ten days as far as 3,000 miles away. ~~The great flood of the Hwang-ho River in 1887 that~~ [illegible] ~~people to death; the famine~~ [illegible] ~~lives of~~

third of the country's population -- tens of millions of people -- and the 1877-1878 famine in Northern China that killed 9,500,000.

And centuries before man seriously tampered with nature through modern medicine, between 1347 and 1351, the Black Death (bubonic plague) wiped out 75,000,000 people in Europe. History records numerous other types of plagues and natural disasters that have periodically destroyed various forms of life and changed the face of the earth -- and most of this is, I remind you, long before man and his new technology interfered with the balance of nature."

And are we to forget that long before the modern technology, pollution had its sway. Thus, Revelation 9: 2 and 18:

"... and from the shaft rose smoke, like the smoke of a great furnace, and the sun and the air were darkened with the smoke from the shaft... By these three plagues a third of mankind was killed, by the fire and smoke and sulphur issuing from their mouths."

Are we to forget that before 1300 King Edward I issued an edict against the burning of coal,

Further, that John

Evelyn in the 1650's wrote a pamphlet titled: "Fumifuguium, or the inconvenience of the aer and smoak of London dissipated. Together with some remedies humbly proposed." And one of his delightful proposals was that sweet-smelling trees should be planted throughout London to purify the air.

I would suggest then that, in dealing with the <u>how</u> of politics, we deploy a strategy of reasonableness in which the industrialist (generally used by environmentalists in the pejorative sense) is not always charged with all crime while the environmentalist holds all virtue.

The industrialist produces mainly what we want. It is, therefore, essential that the new politics of conservation employ tactics and strategy which give equal participation at all levels to those who use the resources, those who produce the products of civilization, and those who espouse the ethics which will preserve these products.

As one exploration in conciliation, we are trying to develop an Ecumenical Congres which World bring conservationists (again at all

levels) together with industrialists, at all levels, in a dialogue which would not only inform conscience but would reform practice. To date, I must report failure because I find a residue of mistrust of each other in conservationists and in industrialists. Did you know that the varieties of conservationists mistrust each other? Did you know that the varieties of industrialists mistrust each other, as well? Yet, ecumenicism hopes to win friends from foes.

Furthermore, it is my hope that conservationists will speak kindly of man: One has but to attend a meeting of conservationists to find that the animal they mistrust most is man, yet, at the same time, they would woo him into considering conservation and preservation. Yet it seems we cannot conserve ourselves.

I would then suggest a <u>short</u> and a <u>long</u> range policy. For the short-range I should suggest:

Continued responsible indignation, smoldering indignation. This also means personal involvement in conservation. Such simple devices as carpools -- till the automobile manufacturers meet their responsibility; protests to industrial concerns which package "non-returnables" -- such simple things will keep our indignation alive. That letter to government officials, that apparently ineffective protest - is effective - if in numbers, and if continued. To act to conserve is to act politically.

Personal and group involvement in the political processes of one's community -- especially those affecting conservation.

Over the long range:

(a) A research program which would demonstrate effectively the uses of the environment to sustain mental and physical health. It is not enough to invoke a religion of the out-of doors. There must be evidence -- if only because the competent adult respects evidence. It is not enough to say that a child who has been bred in the out-of-doors loves the out-of-doors. For this patently untrue. Most city dwellers (for the past hundreds of years), have come from the country; they have helped to destroy the country, and make the cities ugly. Certainly a week in camp is not enough. Experience, per se, is not enough. In my view, it must be experience in search of meaning and not <u>random</u> experience.

(b) A critical look at educational policy is necessary. It seems clear that science ought to give the child an insight into ecology and ecosystems -- but science cannot propagandize for the variety of conservation programs. Conservation is an ethic: it is a value. Belief in conservation comes out of the values which are part of the human use of human beings and are, therefore, part of the Humanities and the Social Sciences.

I might also ask whether it is not time, as part of the Humanities -- in the high school -- to offer a civilizing course in conservation; the thesis being: When man is conserved, he will conserve the environment. The earthworm does not conserve itself, neither does the robin.

(c) To organize more effectively, in order to work in the councils which shape the laws of our country. This audience ought to be the source of powerful supporting documents -- which legislators can use. It is obvious that the next thirty years are crucial.

(d (d) To determine what it is that we shall demand of young people in terms of ethical behavior, as they interact with society and with the older organisms which comprise it (namely the men and women who are no longer fortunate to be as young as they were).

Finally, I call to your attention a mode of behavior which may be useful as a model for those who seek to protect natural resources: Consider the ingredients of the struggle to save San Francisco Bay as reported in a recent issue of the Conservation Newsletter of the Conservation Foundation. This "model" - so it seems to me - is a template for other models.

First, San Francisco Bay is a resource with sex appeal; one that excites the enthusiasm of citizens from all walks of life. As Herold Gilliam said, "the bay has charisma." So does the Sequoia, have

charisma. So as we shall see does man ~~in~~ as child. ~~his growth~~.

In view of BCDC's executive director, Joseph E. Bodovitz, the bay became a "symbol of environmental problems," and people began to get a psychological feeling that "if you can't do something about a problem as relatively simple as this you'll never do anything." (Note: BCDC is San Francisco Bay Conservation and Development Commission.)

-- A strong factual piece of research (such as the Scott report) to justify and back up a public action program to protect or enhance the resource.

-- A nucleus of concerned, hard-working citizens -- many of them politically astute and able to arouse the support of others (including the press), foment political pressure, generate timely publicity and raise money.

-- A powerful and effective legislator to take up the cause. (McAteer provided this leadership until his death. He was followed by Senator George P. Miller, Jr. Since Miller died last January 1, others in the legislature have taken on the job.)

(A good law creating an effective planning agency which, even during its study and planning period, could protect the object of its concern. Thus, it was extremely important that BCDC had power over fill permits during its planning years. Aside from the obvious advantages, says one of those intimately concerned, this "keeps everbody out of the ivory tower

dealing with real problems. And this in turn reinforces the validity of your planning, because at the same meeting you're deciding about planning ideas while you're trying to decide if somebody should fill in this area. It also gets people to meetings." And it creates a "much livelier interest" in the press.

(An agency with a membership broad enough to represent all significant affected interests. BCDC for example, consisted by law of the following: two federal officials (Corps of Engineers and HEW); six state officials; a representative from each of the nine counties bordering on the bay; three city representatives; and seven public members, bay area residents whose appointments are subject to confirmation by the state senate. At the time the plan was completed, these consisted of two businessmen, two attorneys, a civic leader, an architect and a public relations consultant.

(An agency that operates openly, with public hearings and public debate. In addition to the obvious merit, this kept the press and the public interested and involved in shaping the future of the bay. The BCDC plan thus evolved over a period of time, as specific bay problems -- such as fish and wildlife, recreation, airports, etc. -- were presented to commission members in 23 individual reports and summaries. The agency thereby obtained policy statements on each issue as work proceeded, and ended with a strong plan.

-- Finally, of course, a resulting plan that is needed, that will achieve the desired environmental results, that is enforceable, that is respected, and that draws wide support. And also, perhaps, a plan that is adjusted to political, fiscal and legal realities.

("Sure BCDC compromised," said one Californian. "But it wanted to go to the legislature with something that had a chance.")

With all these ingredients present, BCDC and its plan have been the most promising effort yet to design a comprehensive management system for a major natural resource -- a system fitted to an area's ecology.

The California legislature will not determine the future of BCDC, of its plan -- and of the resource itself, San Francisco Bay.*

Lastly, our endeavors should not yield to the easiest available forms of evidence. For example, it is clear that the population problems are excessive but it is not necessarily true that it is the population problems of the poorer

*Conservation Foundation Newsletter, June 9, 1969
1326 Connecticut Ave., N.W., Washington, D.C.
Foundation News
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countries which are causing degradation of the environment. For example, Jean Mayer, a member of the Population Studies at Harvard writes in "Toward a Non-Malthusian Population Policy" published in the Columbia forum (Summer 1969, Volume XII, Number 2): "We have seen that the increase in disposable income creates a population problem that is becoming every day more acute. The ecology of the earth -- its streams, woods, animals -- can accommodate itself better to a rising poor population than to a rising rich population. Indeed, to save the ecology the population will have to decrease as the disposable income increases. If we believe, like Plato and Aristotle, in trying for excellence rather than in rejoicing in numbers, we need a population policy now, for the rich as well as the poor. Excellent human beings will not be produced without abundance of cultural as well as material resources and, I believe, without sufficient space. We are likely to run out of certain metals before we run out of food; of paper before we run out of metals. ~~And we are~~ even while we have

~~... out of ... streams, pure air, and the~~

~~... while we still have~~

the so-called "essentials" of life. Shall we continue to base the need for a population policy on a nutritional disaster to occur at some hypothetical date, when it is clear that the problem is here, now, for us as well as for others? Shall we continue to hide the fact that a rational policy may entail in many countries not only a plateauing of the population as the disposable income rises?"

I am suggesting nothing less than a complete overhaul of our preconceptions and conceptions in the light of fairness -- or, if nothing else, scientific impartiality. Whether it is Mineral King or Storm King, the facts should be honestly appraised -- for as Nels Bohr has stated science gives us the tools to test our preconceptions.

I turn at last, to the <u>who</u>:

<u>Who</u> gets what, when and how?

At last the answer is quite clear. Civilization benefits; it is the <u>who</u>. We benefit; we are the <u>who</u>. But alas, in truth we can only benefit <u>from</u> the work which will guarantee a future harmony and a future sanative environment but not from the fruits of the work. For they may not come in our time.

The fundamental question to which we must address ourselves is: What kind of a world do we want for our children? What is their "Environmental Bill of Rights." I end, then, with the remarks of a gallant gentleman: Adlai Stevenson: "We travel together, passengers on a little spaceship, dependent on its vulnerable reserves of air and soil; all committed for our safety to its security and peace; preserved from annihilation only by the care, the work and I will say the love we give our fragile craft. We cannot maintain it half fortunate, half miserable, half confident, half despairing, half slave to the ancient enemies of man, half free in liberation of resources undreamed of until this day. No craft, no crew can travel safely with such vast contradictions. On their resulotion depends the survival of us all."

The future of all children is in the hands of all teachers. For me it is a safe conclusion to say: If children are conserved they will conserve the environment. How dispassionate we could be, how truthful, how honest, how evidential, how reasonable, if we were to turn to a class discussion of the question: What kind of a world do we want for children? This is the fundamental question for education -- and for conservation education? The question is not: How shall we conserve our environment?

This is perhaps the fundamental question of our time. Those of us in conservation are, in a sense, in a ministry -- not the ministry of the soul but, the ministry of the land. We are charged with the answer of this question and we are charged with a civilized answer.

We can be assured of a civilized answer, if -- in Albert Schweitzer's words -- we understand that those who contribute best are those who are "finished with themselves." For to be finished with one's self is to have given up a life of conquest and competition, to have exchanged it for a life in which, between impulse and action, we interpose evidence, reason, judgment and compassion.

And, if we do this, is it not clear which apostrophe of Shakespeare's we may choose. Not:

> But man, proud man!
> Drest in a little brief authority
> Most ignorant of what he's most assured
> His glassy essence, like an angry ape!
> Plays such fantastic tricks before high heaven!
> As make the angels weep!

but:

What a piece of work is man!

How noble in reason!

How infinite in faculty!

In action how like an angel!

In apprehension how like a god!

--

What kind of a world do we want for our children?